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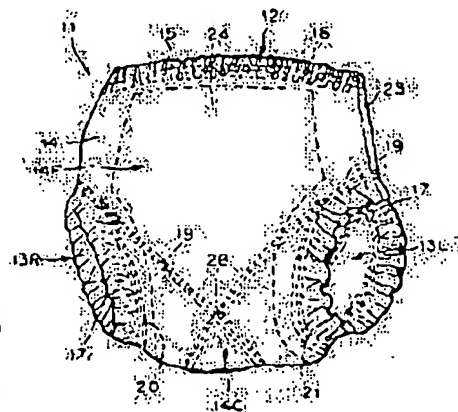
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(54) BRIEFS TYPE DIAPER AND METHOD FOR PRODUCING THE SAME

(57)Abstract:

PROBLEM TO BE SOLVED: To provide a briefs type diaper which fits closely and comfortably, is effective on preventing slipping down and side leakage, and can be produced easily.

SOLUTION: This briefs type diaper has a first elastic member 18, a second elastic member 19, a third elastic member 20, and a fourth elastic member 21, all of which are placed on the outer surface member 14. The first elastic member 18 runs from the right side of the front part 14F of the briefs type diaper to the left side of the back part by way of the crotch part 14C. The second elastic member 19 runs from the left side of the front part 14F to the right side of the back part by way of the crotch part 14C. The third elastic member 20 is placed on the right side of the absorbent 24 and both ends of the elastic member 20 are overlapped on the first and the second elastic members 18 and 19. The fourth elastic member 21 is placed on the left side of the absorbent 24 and both ends of the elastic member 21 are overlapped on the first and the second elastic members 18 and 19. All these elastic members 18-21 have elasticity, and the right leg opening 13R of the briefs type diaper is surrounded by the first, second, and third elastic members, while the left opening 13L is surrounded by the first, second and fourth elastic members.



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DETAILED DESCRIPTION

[Detailed Description of the Invention]

[0001]

[Field of the Invention] This invention relates to the trousers mold diaper which has circumference opening of the waist corresponding to the part of the waist, and circumference opening of a foot of the pair corresponding to the part of the thigh of a biped, and its manufacture approach.

[0002]

[Description of the Prior Art] Circumference opening of the waist corresponding to the part of the waist currently indicated by JP,5-247701,A etc., The mold diaper which has circumference opening of a foot of the pair corresponding to the part of the thigh of a biped and of which it disposes, i.e., a trousers mold diaper It becomes possible to stand especially as compared with the expansion mold diaper which closes the side flap section of right and left which are indicated by JP,6-93901,B before this, and equips with it in addition to attachment and detachment by the adult wearer itself being easy, and to perform wearing with a posture easily and quickly. It seems that moreover, a trousers mold diaper is received for an adult wearer that there is comparatively no resistance than an expansion mold diaper since it becomes possible to equip with the feeling of underwear rather than a diaper.

[0003] Since it is such, as for a trousers mold diaper, instead of an expansion mold diaper, the need is growing as the object for an adult which needs a diaper, or an object for the small children of an ablactation stage. And while raising the fit nature of opening, in order to make an overall feeling of wearing good, it is in the inclination for an elastic ingredient to be used abundantly.

[0004] For example, the thing in which the leg gathers which arrange an elastic member along with circumference opening of a foot, and prevent the leakage from circumference opening of this foot were formed is JP,3-33201,A and JP,3-139349,A JP,3-16920,U It is indicated by JP,4-28363,A.

[0005]

[Problem(s) to be Solved by the Invention] Since the elastic member currently arranged in the opening periphery section of leg opening was not continuing, the trousers mold diaper indicated by JP,3-139349,A and JP,4-28363,A did not necessarily have the enough leakage prevention effectiveness, and there was a problem also in a feeling of wear.

[0006] Moreover, although the elastic member is continued and arranged in the opening periphery section of leg opening, the trousers mold diaper indicated by JP,3-33201,A and JP,3-16920,U Since 2 sets of said elastic member were mostly arranged crosswise in the field to which the absorber of the length-from-the-crotch-to-the-cuff section exists, the part surrounded by the length-from-the-crotch-to-the-cuff section of a diaper by 2 sets of elastic members was produced, the problem had this part in a projection and a feeling of wear in the length-from-the-crotch-to-the-cuff section, and also the exterior was hard to be called desirable thing.

[0007] make it any -- arrangement of the elastic member included in the conventional trousers mold diaper was not enough as controlling the shearing omission of the diaper under wear, and there was a possibility that leakage might arise from circumference opening of a foot located in the crotch section.

[0008]

[Objects of the Invention] The purpose of this invention has adhesion in it being good, excelling in a feeling of wear, controlling shearing omission, and offering a trousers mold diaper with easy high manufacture of the

leakage prevention effectiveness.

[0009] Other purposes of this invention are to offer the manufacture approach of a trousers mold diaper that this trousers mold diaper can be manufactured easily continuously.

[0010]

[Means for Solving the Problem] The sheathing member in which the 1st gestalt of this invention has an antinode flank, the crotch section, and the back, It has the absorptivity body which covers said back and is arranged through said crotch section from said antinode flank of this sheathing member. This absorptivity body It has the absorber arranged between the top sheet of liquid permeability, and this top sheet and said sheathing member. It is the trousers mold diaper which joined the edges-on-both-sides section of the antinode flank of said sheathing member, and the edges-on-both-sides section of said back mutually, and formed circumference opening of the waist corresponding to the part of the waist, and circumference opening of a foot of the pair corresponding to the part of the thigh of a biped. The 1st elastic member from the right-hand side edge of said antinode flank to [said sheathing member] the left-hand side edge of said back through said crotch section, The 2nd elastic member from the left-hand side edge of said antinode flank to [so that it may cross in this the 1st elastic member and said crotch section] the right-hand side edge of said back, The 3rd elastic member to which both ends overlap said 1st and 2nd elastic members while being located between right-hand side circumference opening of said foot, and said absorber, The 4th elastic member to which both ends overlap said 1st and 2nd elastic members while being located between left-hand side circumference opening of said foot and said absorber is arranged. These [1st] - the 4th elastic member It is in the trousers mold diaper characterized by having elasticity, respectively, surrounding circumference opening of a foot of said right-hand side in said 1st, 2nd, and 3rd elastic members, and surrounding circumference opening of a foot of said left-hand side in said 1st, 2nd, and 4th elastic members.

[0011] According to the 1st gestalt of this invention, the leg gathers which cover the perimeter and surround right-hand side circumference opening of a foot by the 3rd elastic member, the 1st elastic member of a field until it intersects the 3rd elastic member from the right-hand side edge of an antinode flank, and the 2nd elastic member of a field until it intersects the 3rd elastic member from the right-hand side edge of the back are formed. The leg gathers which similarly cover the perimeter and surround left-hand side circumference opening of a foot by the 4th elastic member, the 2nd elastic member of a field until it intersects the 4th elastic member from the left-hand side edge of an antinode flank, and the 1st elastic member of a field until it intersects the 4th elastic member from the left-hand side edge of the back are formed.

[0012] Moreover, the 1st elastic member and 2nd elastic member are in the condition of tucking up their sleeves with a cord between the antinode flank of a sheathing member and the edges-on-both-sides section of the back, and the crotch section, and an absorptivity body is pressed against a wearer's crotch section in the state of adhesion.

[0013] Moreover, the sheathing member in which the 2nd gestalt of this invention has an antinode flank, the crotch section, and the back, It has the absorptivity body which covers said back and is arranged through said crotch section from said antinode flank of said sheathing member while having the absorber arranged between the top sheet of liquid permeability, a backseat, these top sheet, and a backseat. Join the edges-on-both-sides section of the antinode flank of said sheathing member, and the edges-on-both-sides section of said back mutually, and circumference opening of the waist corresponding to the part of the waist and circumference opening of a foot of the pair corresponding to the part of the thigh of a biped are formed. The 1st elastic member from the right-hand side edge of said antinode flank to [said sheathing member] the left-hand side edge of said back through said crotch section, The 2nd elastic member from the left-hand side edge of said antinode flank to [so that it may cross in this the 1st elastic member and said crotch section] the right-hand side edge of said back, The 3rd elastic member to which both ends overlap said 1st and 2nd elastic members while being located between right-hand side circumference opening of said foot, and said absorber, While being located between left-hand side circumference opening of said foot, and said absorber, both ends are the manufacture approaches of a trousers mold diaper that said 1st and 2nd elastic members and the 4th overlapping elastic member have been arranged. The step which adjoins the edges-on-both-sides section of said absorber, and arranges the continuum of said 3rd and 4th elastic members in the state of expanding to the continuum of said backseat while arranging said absorber at intervals of predetermined to the continuum of said backseat, The

step which piles up the continuum of said top sheet on the continuum of said backseat, joins through said absorber and the continuum of said 3rd and 4th elastic members, and obtains the continuum of said absorptivity body, So that it may move in a zigzag direction in a predetermined pitch crosswise [of the continuum of the step which cuts the continuum of said absorptivity body at intervals of predetermined crosswise / the /, and acquires said each absorptivity body, and said sheathing member conveyed along with a longitudinal direction] While joining the continuum of said 1st elastic member to the continuum of said sheathing member in the state of expanding The step which carries out [half-pitch **] to the continuum of this 1st elastic member, and joins the continuum of said 2nd elastic member to the continuum of said sheathing member in the state of expanding, So that the center section of said absorptivity body may be located in a part for the intersection of the continuum of said 1st and 2nd elastic members The step which the longitudinal direction of said absorptivity body and the cross direction of the continuum of said sheathing member are made to agree, lays said absorptivity body on top of the continuum of said sheathing member, and is joined, The step which joins the continuum of the elastic member arranged at circumference opening of said waist in the state of expanding to the edges-on-both-sides section of the continuum of said sheathing member, and turns up the edges-on-both-sides section of the continuum of said sheathing member at the edge of said absorptivity body, Said 1st and 2nd elastic members and said 3rd elastic member of one of said absorptivity body of said two absorptivity bodies which adjoins mutually, So that the edges-on-both-sides section of the step which keeps winding almost circularly the center section of the continuum of said sheathing member surrounded by said 4th elastic member of said absorptivity body of another side along with these [1st] - the 4th elastic member, and the continuum of said sheathing member may overlap mutually The step which folds the continuum of said sheathing member in half so that this absorptivity body may serve as the inside with said absorptivity body, The step which joins and closes the continuum of said sheathing member crosswise [the] in the mid-position of said absorptivity body which adjoins the longitudinal direction of the continuum of said sheathing member folded in half, and forms the doubling section, It is in the manufacture approach of the trousers mold diaper characterized by having said step from which it closes and the interstitial segment of the doubling section is cut crosswise [of the continuum of said sheathing member].

[0014]

[Embodiment of the Invention] In the trousers mold diaper by the 1st gestalt of this invention, the elastic member which has elasticity along with circumference opening of the waist may be arranged at the sheathing member. Moreover, an absorptivity body has a backseat further and an absorber may be arranged between this backseat and a top sheet. In this case, the 1st - the 4th elastic member can also be made to be pinched between a top sheet and a backseat, respectively. Furthermore, you may have further the inner layer sheet to which it puts on a sheathing member and an absorptivity body is joined. In this case, the 1st and 2nd elastic members may be pinched between the sheathing member and the inner layer sheet.

[0015] In the manufacture approach of the trousers mold diaper according to the 2nd gestalt of this invention on the other hand It has further the inner layer sheet to which a trousers mold diaper is put on a sheathing member, and an absorptivity body is joined. It precedes laying an absorptivity body on top of the continuum of a sheathing member, and joining, and you may make it have further the step which lays a inner layer sheet on top of the continuum of the sheathing member to which the continuum of the 1st and 2nd elastic members was joined, and is joined to it.

[0016]

[Example] Hereafter, the example of the trousers mold diaper by this invention is explained to a detail, referring to drawing 1 - drawing 8.

[0017] the appearance in the condition of the appearance of the trousers mold diaper in this example having been shown in drawing 1, and having developed this -- drawing 2 -- being shown -- the -- III-III View cross-section structure is shown in drawing 3. Namely, the trousers mold diaper 11 in this example The circumference opening 12 of the waist corresponding to the part of the waist, and circumference opening of foot 13L of the Uichi Hidari pair corresponding to the thigh part of a biped and 13R, These openings 12, 13L, and the sheathing member 14 that forms 13R, The circumference elastic member 16 of the waist for forming the waist gathers 15 by extracting the circumference opening 12 of the waist, The 1st elastic member 18 for extracting circumference opening of foot 13L, and 13R, and forming the leg gathers 17, The 2nd elastic member

19, The 3rd elastic member 20, the 4th elastic member 21, It has the absorptivity body 22 extended to antinode flank 14F and back 14B, respectively from crotch section 14C of the sheathing member 14 between circumference opening of foot 13L on either side, and 13R.

[0018] Moreover, the Uichi Hidari pair which is open for free passage to the circumference opening 12 of the waist, and circumference opening of foot 13L and 13R closes in the right-and-left edges-on-both-sides section of antinode flank 14F and back 14B of the sheathing member 14, and the doubling section 23 is formed in it possible [exfoliation], and by [this] closing and exfoliating the doubling section 23, as shown in drawing 2, it can develop.

[0019] That is, it closes before and behind the sheathing member 14 from the expansion condition shown in drawing 2, and superposition and these contact parts can be acquired for the doubling section 23, and a hot melt adhesive method, the pressurization melting pasting-up method or the ultrasonic melting pasting-up method, etc. can be acquired for independent or the trousers mold diaper 11 shown in drawing 1 by combining suitably and joining.

[0020] The absorptivity body 22 in this example is equipped with an absorber 24 and the top sheet 25 of liquid permeability put on the sheathing member 14 so that this absorber 24 may be covered.

[0021] In addition, this absorptivity body 22 and the sheathing member 14 are mutually joined in one by jointing which makes two or more lines which continued along with these longitudinal directions and which is not illustrated.

[0022] The absorber 24 in this example is made from the well-known absorptivity ingredient with which the absorptivity goods of a conventional diaper and conventional others are usually used. In the monolayer which consists of absorptivity fiber, such as curdy pulp and rayon, or a multilayer mat, namely, superabsorbency polymeric materials The homogeneity (which describes this to be SAP hereafter) is distributed in the shape of a layer between mixing or each mat. this -- tissue, Absorbent paper, what was covered with hydrophilic sheets, such as a hydrophilic nonwoven fabric, and the thing which mixed and carried out thermocompression bonding of 3 - 60% of the weight of the thermal melting arrival nature matter to curdy pulp -- or what covered only SAP with the hydrophilic sheet is used. This absorber 24 may be formed flat and smooth by the uniform consistency, and you may make it change that consistency by forming a concavo-convex pattern in a front face by embossing. Moreover, although the absorber 24 was formed in the hourglass pattern which expanded the width of face of order both ends in this example, you may form in the rectangle of fixed width of face. However, the hourglass pattern can secure good fit nature at the time of wearing.

[0023] Said curdy pulp has the fiber length of 5mm or less obtained by ****(ing) a chemical pulp sheet and a mechanical pulp sheet with a grinder. Moreover, as a pulp raw material, it is not only a needle-leaf tree but a broad-leaved tree, Straw, Bamboo, The recycled pulp other than KEFUNA can be used. Although the amount of this pulp used differs by whether it uses independently, or two or more laminatings are carried out and it uses or other absorbers are used together, generally it is set as about 50-400g per square meter.

[0024] As said SAP, it is a starch system, Cellulose system, The thing of a synthetic polymer system is mentioned. that is A starch-acrylic-acid (salt) graft copolymer, The saponification object of a starch-ethyl-acrylate graft copolymer, The saponification object of a starch-METAKURU acid methyl graft copolymer, The saponification object of a starch-acrylonitrile graft copolymer, The saponification object of a starch-acrylamide graft copolymer, Saponification object of a starch-acrylonitrile-2-acrylamido-2-methyl-propane-sulfonic-acid graft copolymer, Acrylic-acid (salt) polymer, Polyethylene oxide over which the bridge was constructed with the acrylic acid, the bridge formation object of sodium carboxymethylcellulose, It is the bridge formation object of a polyvinyl alcohol-maleic-anhydride reactant etc. The thing of the sodium polyacrylate system which absorbs liquids, such as urine of 20 times or more of a self-weight, especially is suitable from the point of absorptivity ability. the curdy pulp 100 weight section which dried the amount of this SAP used -- receiving -- the 10 - 500 weight section -- it is the 15 - 300 weight section preferably. And when SAP absorbed and swells a liquid, it is rare for a mutual interference of each particle to be stopped by min, to contact continuously, and to form the permeability barrier of a liquid, and it is desirable to carry out transparency absorption of the liquid in the direction of three dimensions.

[0025] In addition, you may make it join a diffusion layer to the front face of an absorber 24. By having arranged this diffusion layer, a wearer's posture etc. is not [how] scrupulous, and it becomes possible to

prevent leakage, without reducing urinary rate of absorption. As this diffusion layer, they are polypropylene and polyethylene, Polyester, Rayon, Nonwoven fabric of the hydrophilic property which used these bicomponent fibers etc. other than pulp, and liquid permeability, Textile fabrics Porous plastics It can form from curdy pulp etc.

[0026] Moreover, as said top sheet 25, it is polypropylene, Polyethylene, Polyester, Single fibers, such as nylon, or polyester, Polypropylene, Polyethylene, A hydrophilic property or a hydrophobic nonwoven fabric, textile fabrics, or porous plus CHIFFIRUMU formed with the bicomponent fiber which consists of two or more components, such as nylon, is employable. Especially, the bicomponent fiber of polyester/polyester, polyester/polyethylene, or polypropylene/polyethylene is desirable from a strong field. It is not necessary to constitute the top sheet 25 from a single sheet, and it can constitute the top face of an absorber 24 from a wrap center sheet and a sideseat of the pair joined to those crosswise both sides, and may form a center sheet and a sideseat with a different ingredient in this case.

[0027] Between the sheathing member 14 and the absorptivity body 22, the 1st - the 4th elastic member 18-21 are pinched in the state of expanding. The 1st elastic member 18 is arranged so that it may result in the closing doubling section 23 which is located in the right-hand side edge of antinode flank 14F and which closes and is located in the left-hand side edge of back 14B through the center of crotch section 14C from the doubling section 23. Moreover, the 2nd elastic member 19 is arranged so that it may cross in the center of this 1st elastic member 18 and crotch section 14C, and it may result in the closing doubling section 23 which is located in the left-hand side edge of antinode flank 14F and which closes and is located in the right-hand side edge of back 14B through the center of crotch section 14C from the doubling section 23. On the other hand, the 3rd elastic member 20 is arranged along with right-hand side circumference opening of foot 13R so that it may be located between the side edge of an absorber 24, and right-hand side circumference opening of foot 13R, and the both ends are in the 1st and 2nd elastic members 18, and 19 and a crossover condition. Similarly, the 4th elastic member 21 is arranged along with left-hand side circumference opening of foot 13L so that it may be located between the side edge of an absorber 24, and left-hand side circumference opening of foot 13L, and the both ends are in the 1st and 2nd elastic members 18, and 19 and a crossover condition.

[0028] These 1st, 2nd, 3rd, and 4th elastic members 18-21 More than one consist of flexible spring materials of a book (the example of illustration every 3), respectively. By the 3rd elastic member 20 the right-hand side edge side of back 14B of the 2nd elastic member 19 the right-hand side edge side of antinode flank 14F of the 1st elastic member 18 The leg gathers 17 which cover the perimeter and surround right-hand side circumference opening of foot 13R are formed. Similarly, the leg gathers 17 which cover the perimeter and surround left-hand side circumference opening of foot 14L by the 4th elastic member the left-hand side edge side of antinode flank 14F of the 2nd elastic member 19 the left-hand side edge side of back 14B of the 1st elastic member 18 are formed.

[0029] Thus, by continuing and forming the leg gathers 17 in the perimeter of circumference opening of foot 13L, and 13R, the leakage prevention effectiveness is high and the trousers' mold diaper 11 excellent in a feeling of wear can be obtained. Moreover, since the 1st elastic member 18 and 2nd elastic member 19 are in the condition of tucking up their sleeves with a cord between the edges-on-both-sides section of antinode flank 14F and back 14B of the sheathing member 14, and crotch section 14C, an absorber 24 is pressed against a wearer's whole crotch section in the state of adhesion, shearing omission is controlled, and a good feeling of wear is obtained.

[0030] In addition, although the 1st - the 4th elastic member 18-21 were formed with three flexible spring materials, respectively and mutual spacing of each flexible spring material was fixed in this example Mutual spacing of the 1st and 2nd elastic members 18 and the flexible spring material which constitutes 19, You may make it make different mutual spacing of the 3rd and 4th elastic members 20 and the flexible spring material which constitutes 21. For example, it is also effective to change mutual spacing of the 1st and 2nd elastic members 18 and the flexible spring material which constitutes 19 along with the longitudinal direction so that it may become max by crotch section 14C. Moreover, it is also possible to constitute each flexible spring material from number of one or more arbitration, respectively, and you may make it make different the number of the 1st and 2nd elastic members 18 and the flexible spring materials which constitute 19, and the number of the 3rd and 4th elastic members 20 and the flexible spring materials which constitute 21. It is possible to also make

different similarly the 1st and 2nd elastic members 18, the internal stress generated to the fixed load of 19, and the 3rd and 4th elastic members 20 and the internal stress generated to the fixed load of 21.

[0031] Furthermore, although it set up in this example so that the 1st - the 4th elastic member 18-21 might be mostly arranged to the symmetry by antinode flank 14F and back 14B and it might be located in the center of crotch section 14C by the amount of [the 1st and 2nd elastic members 18 and / of 19 / 26] intersection the direction which could be biased toward any of antinode flank 14F and back 14B they are, and generally shifted a part for the 1st and 2nd elastic members 18 and the intersection 26 of 19 from crotch section 14C to antinode flank 14F -- adhesion -- and it slips down and is desirable from the point of prevention.

[0032] The circumference elastic member 16 of said waist is arranged in the state of expanding to the longitudinal direction both ends of the sheathing member 14. In this example, it is turned up so that the longitudinal direction both ends of this sheathing member 14 may pinch the circumference elastic member 16 of the waist, and the circumference opening 12 of the waist is formed.

[0033] The elastic member 16 mentioned above, and 18-21 are natural rubber Synthetic rubber The shape of yarn, such as urethane, The shape of a string, The shape of a network, Although the thing of a flat tip configuration is used according to an arrangement location and it is fixed to the sheathing member 14 by water-soluble pastes, such as a starch system or CMC (carboxymethyl cellulose), or fluid high adhesives, you may make it weld with hot melt, a supersonic wave, etc.

[0034] Although the absorptivity body 22 was formed with the absorber 24 and the top sheet 25, you may make it wrap an absorber 24 in the example mentioned above with this backseat and the top sheet 25 using the backseat infixed between the sheathing member 14 and an absorber 24. Moreover, it is possible to also make a inner layer sheet intervene between the sheathing member 14 and the absorptivity body 22.

[0035] Although the V-V view cross-section structure is shown in drawing 5 while the expansion condition of other examples of the trousers mold diaper of such this invention is shown in drawing 4 , the explanation which describes the same sign as this at the member of the same function as a previous example, and overlaps shall be omitted. That is, the absorptivity body 22 in this example is equipped with an absorber 24 and the backseat 27 in which this absorber 24 is formed between the wrap top sheet 25, and an absorber 24 and the sheathing member 14, and these backseats 25 and the top sheet 26 have a width method narrower than the width method of the sheathing member 14. And it is in the 3rd and 4th elastic members 20 and the condition that 21 was pinched between the backseat 25 and the top sheet 26 along with the edges on both sides of an absorber 24.

[0036] Moreover, the absorptivity body 22 is joined to the sheathing member 14 in one through jointing which makes two or more lines which the 1st and 2nd elastic members 18 and the inner layer sheet 28 holding 19 piled up between this sheathing member 14, and continued along with that longitudinal direction on this inner layer sheet 28 and which is not illustrated.

[0037] As said sheathing member 14, a backseat 27, and a inner layer sheet 28, they are films of liquid impermeability, such as polyethylene, that any one layer should just be liquid impermeability at least, What is independent about a hydrophilic property, a hydrophobic nonwoven fabric, textile fabrics, etc., or stuck the film, the nonwoven fabric, or textile fabrics of liquid impermeability is employable suitably.

[0038] As the manufacture process of such a trousers mold diaper 11 is shown in drawing 6 expressed notionally the continuum of the sheathing member conveyed along with a longitudinal direction -- 14W -- the continuum of the 1st elastic member -- 18W -- the continuum of this sheathing member, while joining in the state of expanding so that it may move in a zigzag direction in a predetermined pitch crosswise [of 14W] the continuum of this 1st elastic member -- 18W -- receiving -- half-pitch ** et al. -- carrying out -- the continuum of the 2nd elastic member -- 19W -- an expanding condition -- the continuum of a sheathing member -- it joins to 14W. furthermore, the continuum of the circumference elastic member of the waist -- 16W -- the continuum of a sheathing member -- it joins to the edges-on-both-sides section of 14W in the state of expanding. and the continuum of these 1st and 2nd elastic members -- the continuum of 18W, 19W, and the circumference elastic member of the waist -- the continuum of the sheathing member from 16W -- 14W -- the continuum of a inner layer sheet -- 28W are piled up and it joins.

[0039] On the other hand, after manufacturing 22W of continua of an absorptivity body at another process and cutting this on each absorptivity body 22, so that the longitudinal direction of this absorptivity body 22 and the cross direction of 14W of continua of a sheathing member may agree The edges-on-both-sides section of 14W

is turned up inside. the absorptivity body 22 -- the center section -- the continuum of the 1st and 2nd elastic members -- a part for the intersection 26 which are 18W and 19W is overlapped -- as -- predetermined spacing -- the continuum of a inner layer sheet -- 28W top -- piling up -- ***** -- the continuum of a sheathing member -- The absorptivity body 22 is united with 28W of continua of a inner layer sheet.

[0040] In addition, 22W of continua of an absorptivity body carries an absorber 24 at intervals of predetermined on the continuum of the backseat which is not illustrated. Furthermore, the edges-on-both-sides section of the continuum of this backseat is met at the edges-on-both-sides section of an absorber 24. Continuum 20W of the 3rd and 4th elastic members, and 21W in the state of expanding Superposition, further -- these absorbers 24 and the continuum of the 3rd and 4th elastic members -- 20W and 21W -- a wrap -- like -- the continuum of a top sheet -- it is obtained by unifying 25W in piles.

[0041] Next, continuum 18W of the 1st and 2nd elastic members, 19W, and the 3rd elastic member 20 of one absorptivity body 22 of the two absorptivity bodies 22 which adjoin mutually, Along with these [1st] - the 4th elastic member, winding the center section of 28W of continua of continuum 14W of the sheathing member surrounded by the 4th elastic member 21 of the absorptivity body 22 of another side and a inner layer sheet is kept almost circularly, and the **** omission section 29 is formed.

[0042] And 28W of continua of continuum 14W of a sheathing member and a inner layer sheet is folded in two in the center section in alignment with the longitudinal direction so that the absorptivity body 22 may become inside. the continuum of this sheathing member -- the continuum of the circumference elastic member of the waist of the pair located in the edges-on-both-sides section of 14W -- the central part of the **** omission section 29 which became superposition and a hemicycle mutually about 16W -- the continuum of a sheathing member -- so that it may cross crosswise [of 14W] the adhesion fixed part which closes and has the width of face of the two times of the doubling section 23 -- predetermined spacing -- forming -- the continuum of a trousers mold diaper -- after obtaining 11W, the central part of an adhesion fixed part is cut and each trousers mold diaper 11 is obtained.

[0043] In addition, although the center section was cut in the example mentioned above after forming the adhesion fixed part, it closes after cutting, the doubling section 23 is joined mutually, and you may make it obtain the trousers mold diaper 11.

[0044] According to the example shown in drawing 4 - drawing 7 , since the backseat 27 is used, it has the fault in which a manufacturing cost increases rather than a previous example, but since the absorptivity body 22 can be made in another Rhine, mass-production nature can be raised rather than the example shown in drawing 1 - drawing 3 .

[0045] Although it was made to make the 1st and 2nd elastic members 18 and 19 pinch between the sheathing member 14 and the inner layer sheet 28 in the example shown in drawing 4 - drawing 7 , it is possible to also make it pinch between the top sheet 25 of the absorptivity body 22 and a backseat 27. Moreover, the inner layer sheet 28 may be formed with the same ingredient as a backseat 27, or you may make it form 27 for a backseat with the same ingredient as the sheathing member 14.

[0046] Although the cross-section structure of another example of the trousers mold diaper by such this invention is shown in drawing 8 , a stop and the overlapping explanation shall be omitted to describe the same sign as this in the member of the same function as a previous example. That is, on the backseat 27 of the absorptivity body 22, the 1st - the 4th elastic member 18-21 are arranged in the state of expanding. The sheathing member 14, the backseat 27, and the inner layer sheet 28 in this example Like the case of a previous example that any one layer should just be liquid impermeability at least A film, a previous example and the thing of this quality of the material, i.e., liquid impermeability, and a hydrophilic property or a hydrophobic nonwoven fabric, What consisted of textile fabrics etc. can be used and the profile configuration is set up identically to the sheathing member 14 with the top sheet 25. [ingredient / which constitutes each sheet]

[0047] In addition, it is also possible to form the solid gathers which used the top sheet 25 and the backseat 27 for the edges-on-both-sides section of the absorber 24 of the absorptivity body 22 with the elastic member, and to control leakage further.

[0048]

[Effect of the Invention] Since the 1st elastic member and 2nd elastic member have been arranged in the state of tucking up their sleeves with a cord between the antinode flank of the sheathing member of non-elasticity and

the edges-on-both-sides section of the back, and the crotch section according to this invention, as a result of pressing an absorptivity body against a wearer's crotch section in the state of adhesion and controlling the shearing omission of a diaper, the trousers mold diaper excellent in a feeling of wear can be manufactured in low cost.

[0049] Moreover, since the elastic member was aslant arranged to the field to which the absorber of the crotch section exists, a feeling of wear can be raised more.

[0050] Furthermore, since an absorptivity body is manufactured at another process and this was laid on top of the continuum of a sheathing member, productive efficiency can be raised and a cheap trousers mold diaper can be offered by low cost.

[Translation done.]

用感に優れたパンツ型おむつを低コストにて製造することができる。

【0049】また、股間部の吸収体が存在する領域に弾性部材が斜めに配置されるようにしたので、着用感をより向上させることができる。

【0050】さらに、吸収性本体を別工程にて製造し、これを外装部材の連続体に重ね合わせるようにしたので、生産効率を向上させて低コストで安価なパンツ型おむつを提供することができる。

【図面の簡単な説明】

【図1】本発明によるパンツ型おむつの一実施例の外観を表す斜視図である。

【図2】図1に示したパンツ型おむつの閉じ合わせ部を剥離して展開した状態の外観を表す平面図である。

【図3】図2中のIII-III矢視断面図である。

【図4】本発明によるパンツ型おむつの他の実施例の図2に対応した平面図である。

【図5】図4中のV-V矢視断面図である。

【図6】図7と共に図4および図5に示したパンツ型おむつの製造手順を表す作業工程図である。

【図7】図6と共に図4および図5に示したパンツ型おむつの製造手順を表す作業工程図である。

【図8】本発明によるパンツ型おむつの別な実施例の図3に対応した断面図である。

【符号の説明】

11 パンツ型おむつ

11W パンツ型おむつの連続体

12 ウエスト周り開口部

13L, 13R 脚周り開口部

14 外装部材

14F 腹側部

14B 背側部

14C 股間部

14W 外装部材の連続体

15 ウエストギャザー

16 ウエスト周り弾性部材

16W ウエスト周り弾性部材の連続体

17 レッグギャザー

18 第1の弾性部材

18W 第1の弾性部材の連続体

19 第2の弾性部材

19W 第2の弾性部材の連続体

20 第3の弾性部材

20W 第3の弾性部材の連続体

21 第4の弾性部材

21W 第4の弾性部材の連続体

22 吸収性本体

22W 吸収性本体の連続体

23 閉じ合わせ部

24 吸収体

25 トップシート

25W トップシートの連続体

26 交差部分

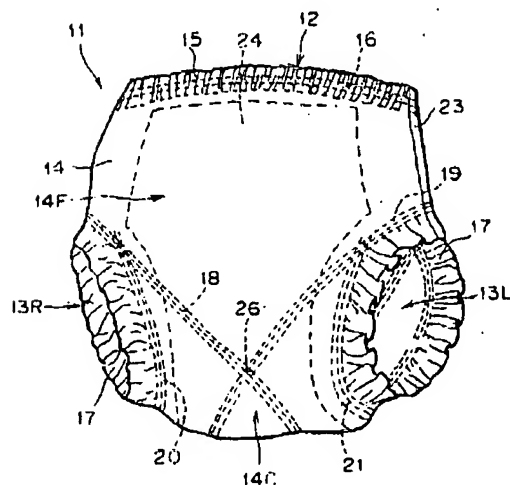
27 バックシート

28 内層シート

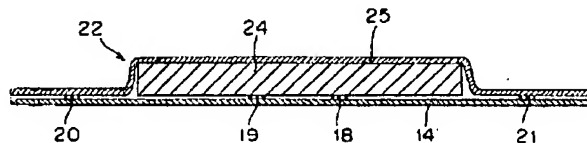
28W 内層シートの連続体

29 くり抜き部

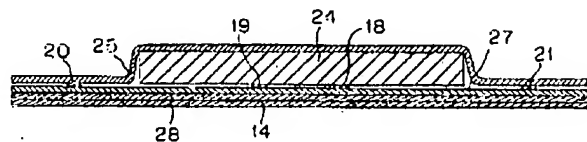
【図1】



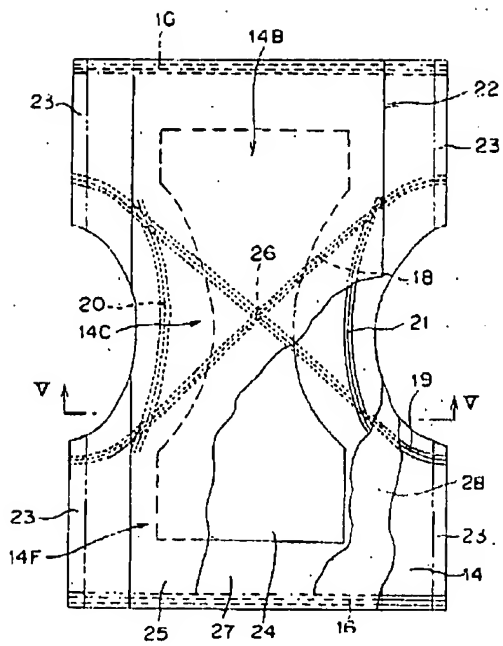
【図3】



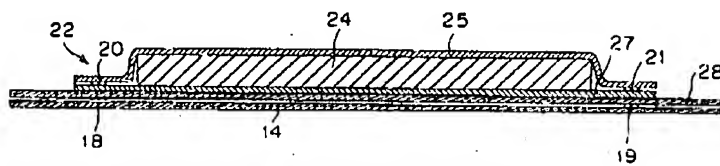
【図8】



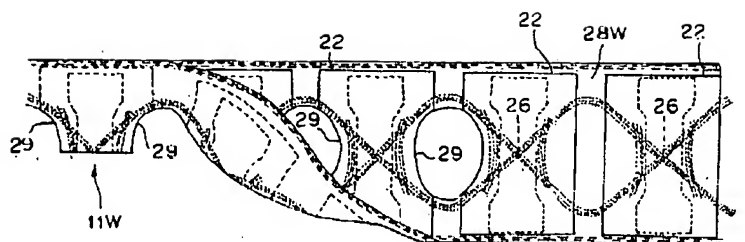
【図4】



【図5】



【図 7】



【図6】

